

WELL DEVELOPMENTS

June 2003
Vol. 7
No. 1

BOARD OF WATER WELL CONTRACTORS

RENEWALS ARE DUE !!

Please note that licenses will not be sent out unless all of these requirements are met:

- (1) proper fee
- (2) proof of continuing education credits
- (3) original or copy of bond for 2003-2004

37-43-306. Bond to be required.

- (1) The department, on issuance of a water well contractor's or monitoring well constructor's license under this chapter, shall require, before the person commences operations in this state, a good and sufficient surety bond or its equivalent in a certificate of deposit, cashier's check, bank draft, or certified check, to be approved by the board, in the sum of \$4,000, conditioned that the licensee will comply with the rules of the board.
- (2) A person who is licensed in more than one category need supply only one surety bond or its equivalent in a certificate of deposit, cashier's check, bank draft, or certified check, to be approved by the board, for \$4,000.
- (3) A state or federal employee who is bonded by the state or federal government is not required to supply a bond during the course of their employment with the state or federal government. A bond is required if the person ceases government employment.
- (4) In lieu of the requirements of subsections (1) through (3), a firm, corporation, or partnership having more than two licensed wa-

ter well contractors or monitoring well constructors may submit one bond in the amount of \$10,000 for the entire firm, corporation, or partnership.

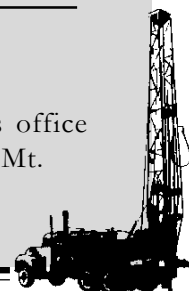


37-43-301. Licensed person to supervise all construction.

- (1) Any firm, corporation, or partnership may engage in the business of constructing water wells provided a licensed water well contractor is placed in charge of all water well construction.
- (2) The licensed water well contractor must be the individual who contracts on behalf of the firm, corporation, or partnership.
- (3) A licensed water well driller, pursuant to 37-43-405, must be employed by a licensed water well contractor.

We've Moved!!!

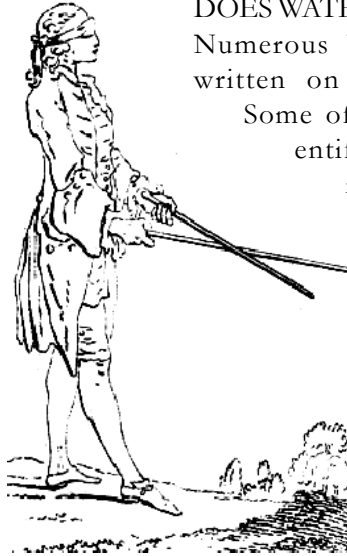
The Board of Water Well Contractor's office has moved to 1424 9th Ave. Helena, Mt. 59620-1601.



BWWC TIDBITS

WATER WITCHING

On occasion, you will be asked to drill exactly where an owner had the well witched. It doesn't help either to argue or to agree. Your basic job is to drill where the owner wants, because the well location is, within limits, his responsibility. The limits are basically safety from utilities and state requirements for maintaining distances from septic tanks, sewer lines, etc. Drillers can get into trouble when there is not enough water or the well is dry. Don't compound the problem by arguing about water witching or by promising water. Remember, your responsibility is to drill the hole properly and develop the water that you encounter.



DOES WATER WITCHING WORK?

Numerous books and pamphlets have been written on the subject of water witching.

Some of these publications report on scientifically controlled experiments and

investigations. From these find-

ings, the U.S. Geological Survey has concluded that the expense of further tests of water dowsing is not justified. Not one scientifically conducted experiment using water witches to locate optimal sites for well location has ever yielded conclusive, reproducible support for water witches' claims.

New Law for Filing Well Logs

HB #83 was recently signed into law by Governor Martz and takes effect on July 1, 2003. The bill requires that:

1) All well logs be sent to the Bureau of Mines:

GWIC, 1300 W. Park St.

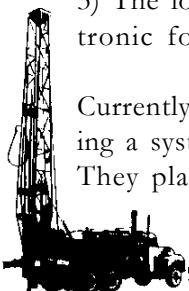
Main hall 322

Butte, Mt. 59701-8997.

2) The format of the drill logs will be decided on by the Dept. of Natural Resources and Conservation in consultation with the Board of Water Well Contractors and the Bureau of Mines and Geology

3) The logs may be submitted in an electronic format.

Currently the Bureau of Mines is designing a system to process electronic forms. They plan to have it ready by October.



DEQ SETBACK REQUIREMENTS

Amended DEQ Rules –

Updated DEQ subdivision rules (ARM 17.36 sub-chapter 3) went into effect May 17, 2002.

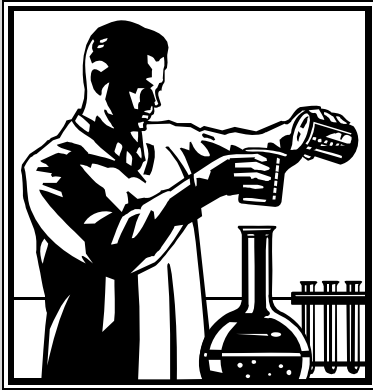
Board Member Eric Regensburger said, “ While there are several changes in the rules regarding drinking water wells, one change that may have direct effect on water well contractors and drillers is the setback requirement.”

ARM 17.36.323 (1) requires a minimum horizontal distance between water supply wells and surface water/springs of 100 feet.

This set back applies to water supply wells in new subdivisions that have been submitted for review and approval after the effective date of the rule. A waiver of this setback could be obtained. Another amendment requires a 10-foot setback between water supply wells and floodplains. It is up to the homeowners to make sure the driller follows this rule. It is not the driller's responsibility to determine the location of the well.

BWWC TIDBITS

Disinfection



ARM 36.21.662, about disinfection, states:

(1) Sand and gravel used in filter pack wells shall be thoroughly hosed or sluiced with water, and shall be disinfected with a solution containing at least 50 parts per million

chlorine before being placed in the well. All water introduced into a well during construction shall be clean and potable. The well and its equipment, including the interior of the well casing, shall be thoroughly swabbed and cleaned to remove all oil, grease, and foreign substances upon completion of a well, and again after the pumping equipment has been installed, a well and its equipment shall be disinfected by thoroughly agitating and

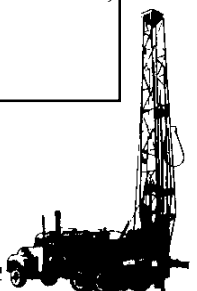
mixing in the well a solution containing enough chlorine to leave a residual of 25 parts per million throughout the well after a period of 24 hours.

(2) The responsibility for the chlorination of the of known or suspected contamination or areas of iron bacteria problems. Wells that contain water of high iron or sulphur content may require more chlorine. Chlorine pellets (calcium hypochlorite) and granules will give up to a 50 ppm chlorine residual. To produce a 50ppm result use about one ounce of pellets for 100 gallons. One ounce of granules is about the same as 35 pellets per 100 gallons. It is necessary to flush the well system within 36 hours to prevent corrosion from using high levels of chlorine. Bacteria growth can be contained if you sanitize the well annually.

Complaints



Everyone gets complaints. BWWC receives nearly 200 complaints annually, ranging from drillers using foul language or destroying a lawn, to actual well construction violations. If you can't satisfy the well owner and it looks like trouble, it is wise to inform the BWWC office as to the nature of the complaint, so that it is not a total surprise. BWWC can likely resolve the complaint before it gets to be a personal vendetta. Most complaints occur because of a financial misunderstanding. The board does not and cannot interfere in those business dealings. The board does get involved, however, if the allegation is about improper well construction methods.

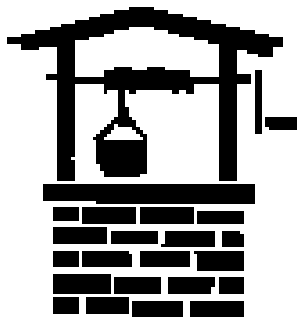


BWWC TIDBITS

.....ARTESIAN WELLS.....

Nearly all water wells are under some pressure after drilling and could be termed "*artesian wells*". "*Flowing wells*" are simply artesian wells that have enough pressure for water to flow out of the top of the casing. You are required to control a flowing well, which means capping it and installing a shutoff valve to shut it off completely. If it flows around the casing, you must pressure grout it until it is controlled or stops flowing. This is not easy and usually is a trial-and-error procedure. You can pressure grout inside the casing or blow a hole down outside the outer casing with air and water before grouting.

You can use different setting ingredients with the grout. Cement grout usually works best with some quick set additives.



In any event, you must control the flow, and thereafter it is up the well owner to work out the amount of the beneficial use with DNRC regional office.

36.21.667

SAMPLING OF FORMATIONS

(1) The contractor shall secure representative samples of all materials encountered in the formations drilled in the well. These samples shall be taken as required by the following::

(a) one sample at the beginning of each change in material encountered; and

(b) samples should be taken in the water-bearing aquifer(s).

(2) sampling methods used shall assure securing the required representative sample. Care shall be taken to accurately determine the depth of the material sampled.

(3) materials encountered during the sampling shall be so indicated on the well log report form.

WORLD GROUNDWATER NEWS

At the World Summit on Sustainable Development in Johannesburg last year, leaders pledged to halve the proportion of people lacking safe drinking water by 2015, which means connecting up 274,000 people a day until then.

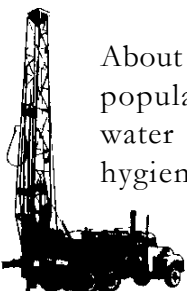
About 40% of the world's population has insufficient water for sanitation and hygiene, and 2.2m people

die each year from diseases linked to inadequate sewerage or contaminated drinking water. The Chilean village of Caleta, Chungungo has even started harvesting water from the clouds, by putting up huge nets on a nearby mountainside to catch the vapor.

Britain, the first industrialized nation, whose factories used to spew vast quantities of



toxic waste into its rivers, has cleaned up its act sufficiently to become the fourth-best water provider, beaten only by the environmentally conscious Finns, Canadians, and New Zealanders.



NEW LICENSEES



Water Well Contractors

Alfred High, *Andrew Well Drilling Service*, Idaho Falls, ID
Wyman McCloughlin, *Raging Wolf Drilling*, Choteau, MT
Ed Hillman, *EDS Inc.*, Livingston, MT
Vince Hillman, *Hillman Drilling*, Bozeman, MT
Alex Matheson, *50/50 Drilling*, Lavina, MT



Monitoring Well Constructors

Ron Sink, *Environmental West*, Spokane, WA
Martin Wilson, *AK Drilling*, Ramsey, MT
Curtis Padilla, *Maxim Technologies*, Billings, MT
Mark Medley, *Maxim Technologies*, Casper, WY
Eric Anzik, *O'Keefe Drilling*, Butte, MT
Steve Johnson, *MT Department of Transportation*, Helena, MT

Water Well Drillers

Lane Boyce, *Boyce Drilling*, Sidney, MT
Brandon Bick, *Bridger Drilling*, Bozeman, MT
Mark Nichols, *Boyce Drilling*, Sidney, MT
Travis Denevan, *Main Harbor Pump*, Polson, MT
Sam Downey, *H&L Drilling*, East Helena, MT
Eric Anzik, *O'Keefe Drilling*, Butte, MT
Robert Kyle Schoepf, *Glazier Drilling*, Kalispell, MT

CONTINUING EDUCATION SCHEDULE

The Montana Environmental Training Center (METC) has prepared its training calendar for 2002, and BWWC has recommended several courses that qualify as approved training for water well licensees. They are as follows:

Pumps: Performance, Applications/Electrical & SCADA Systems

July 15, 2003	Kalispell	Call 454-1151
July 17, 2003	Belgrade	Call 454-1151

Monitoring Schedules: A Compliance Aid

July 16, 2003	Missoula	Call 771-4433
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Leak Detection Methods and Water Auditing

August 12, 2003	Miles City	Call 454-1151
August 14, 2003	Havre	Call 454-1151

Lagoon Systems—The Basics

August 20-21, 2003	Great Falls	Call 771-4433
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13th Annual Advanced Wastewater Training

August 26-28, 2003	Yellow Bay	Call 771-4433
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Exam Prep Session

September 3-4, 2003	Great Falls	Call 771-4433
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The Board of Water Well Contractors and METC have discussed training sessions that may be more specific to water well and monitoring well construction. If you have suggestions for training, please contact Tom Gignoux at 444-6643 or Jan Boyle at 771-4433.

Most training schools by suppliers and manufacturers begin in the spring of the year. You should contact your suppliers for upcoming schedules. ♦

NEW TO BWWC

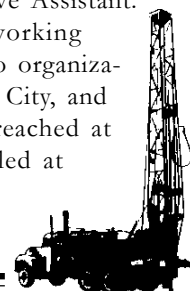


♦♦♦TOM GIGNOUX♦♦♦

Tom Gignoux has filled Bob Rudio's position as Program Manager. Tom, a geologist, was trained as a well driller in the service. He also has drilling experience from the metals exploration industry. Tom at (406) 444-6643 or e-mail him at tgignoux@state.mt.us

♦♦♦JAMIE SCOW♦♦♦

Jamie Scow has filled Pat Boggess's position as Administrative Assistant. Jamie has experience working with the Albertson-Osco organization in Boise, Salt Lake City, and Helena. Jamie can be reached at (406) 444-0862 or emailed at jscow@state.mt.us.



WEBSITES TO BOOKMARK

The Internet is a huge information bank, and finding what you are looking for can be time-consuming and frustrating. Provided below is a list of websites that relate to BWWC:

MONTANA CODE ANNOTATED (MCA)

<http://www.dnrc.state.mt.us/wrd/MontanaCodesAnnotated.htm>

Provides the Montana statutes for BWWC

ADMINISTRATIVE RULES (ARM)

<http://www.dnrc.state.mt.us/wrd/AdminRules.htm>

Provides the Administrative Rules of Montana for BWWC

BWWC NEWSLETTER

<http://www.dnrc.state.mt.us/wrd/home.htm>

Provides the latest BWWC newsletter, *Well Developments*.

WELL LOG REPORT FORMS

<http://www.dnrc.state.mt.us/wrd/home.htm>

Contains the Well Log Report Form 603 for drillers, use only to record wells drilled.

WATER WELL DRILLING FOR THE PROSPECTIVE WELL OWNER

<http://www.dnrc.state.mt.us/wrd/home.htm>

Provides valuable information for persons looking at drilling a well

LICENSE RENEWAL FORM

<http://www.dnrc.state.mt.us/wrd/home.htm>

Provides the yearly license renewal form

BWWC BOARD MEMBERS

<http://www.dnrc.state.mt.us/wrd/home.htm>

Provides a list of all the board members. ♣

BOARD MEMBERS

Bob Bergantino, MBMG Member
Pat Byrne, Industry Member
Kevin Haggerty, Industry Member
Eric Regensburger, DEQ Member
Laurence Siroky, DNRC Member

375 copies of this document were published at an estimated cost of 19¢ per copy. The total cost of \$187 includes \$71 for printing and \$116 for distribution.

*Persons with disabilities who need an alternative, accessible format of this document should contact: DNRC, 1424 9th Avenue,
P.O. Box 201601, Helena, MT 59620-1601 -- Phone: 406-444-6643/Fax: 406-444-0533/TDD: 406-444-6873*



Board of Water Well Contractors

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